Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTO/SB/21 (09-04) Approved for use through 07/31/2006, OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

09/938,048

| TOANCRAITTAL | | · · pp.iodatoti ttatitibo | · | | <u> </u> | 7 |
|--|------------------|---|------------------------|--|--|---|
| TRANSMITTAL | - | Filing Date | | August 23, | 2001 | |
| FORM | | First Named Invent | or | C. Frank B | ennett | |
| | | Art Unit | | 1635 | | 7 |
| (to be used for all correspondence after | initial filing) | Examiner Name | | Sean McG | arry | 7 |
| Total Number of Pages in This Submiss | ion | Attorney Docket No | ımber | ISIS0172-1 | 100 (ISPH-0567) | 7 |
| | ENCLO | SURES (check all tha | t apply) | | | 7 |
| Fee Transmittal Form | ☐ Drawing(s | s) | | After Allo | owance Communication to TC | 7 |
| Fee Attached | Licensing | -related Papers | | | Communication to Board als and Interferences | |
| Amendment / Reply | Petition | | | | Communication to TC lotice, Brief, Reply Brief) | Î |
| After Final | | Convert to a al Application | | Proprieta | ary Information | |
| Affidavits/declaration(s) | | Attorney, Revocation of Correspondence Add | ress | Status L | etter | |
| Extension of Time Request | Terminal I | Disclaimer | | Other E | nclosure(s) dentify below): | |
| Express Abandonment Request | I | or Refund | | Table AStatementexecuted A | Under 37 CFR 3.73(b) | |
| Information Disclosure Statement | | ndscape Table on CD | | - Return Po | • | |
| Certified Copy of Priority Document(s) Reply to Missing Parts/ | Remarks | | | | | |
| Incomplete Application Reply to Missing Parts under 37 CFR1.52 or 1.53 | | | | | | |
| SIG | NATURE OF | APPLICANT, ATTOR | RNEY, OF | RAGENT | | |
| Firm | Cozen O'Conno | or, P.C. | | | | |
| Signature | R | PKD | | | | |
| Printed Name | Paul K. Legaard | d | | | | |
| Date | March 24, 2005 | 5 | Reg. No. | 38,534 | | |
| | CERTIFICA | TE OF TRANSMISS | ION/MAI | LING | | 2 |
| I hereby certify that this corresponder Service with sufficient postage as fi Alexandria, VA 22313-1450 on the dat | rst class mail i | in an envelope addres | ne USPTO ssed to: C | or deposited commissioner | I with the United States Posta for Patents, P.O. Box 1450 | ļ |
| Signature | 0 | A, | \sim | | | |
| Typed or printed name Paul K. L | egaard | | | Date | March 24, 2005 | 7 |

Application Number

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assistant Commissioner for Patents Washington, DC 20231

Sir:

POWER OF ATTORNEY WITH REVOCATION AND

| CHANGE OF C | ORRESPONDENCE AI | DDRESS |
|--|-----------------------------|--|
| I hereby revoke all previous po | owers of attorney or author | rizations of agent given in the |
| applications identified in Table A attac | ched hereto, and appoint | |
| X Practitioners at Custor | ner Number: 34138 | PLACE CUSTOMER NUMBER BAR CODE LABEL HERE |
| as my/our attorney(s) or agent(s) to pr | osecute the application ide | entified above, and to transact |
| all business in the United States Paten | t and Trademark Office co | onnected therewith. |
| A to: Practitioners at Custon I am the: Applicant/Inventor. | mer Number: 34138 | ement under 37 CFR 3.73(b) |
| 1 | Respectfully submitted, | |
| | ISIS PHARMACEUTICA | ALS, INC. |
| Date: 3/16/05 | By: SMH |) |

Name: Laura A. Handley Title: Vice President



TABLE A

| SERIAL NO. | FILING DATE | INVENTORS | EXAMINER ART UNIT | ART UNIT | TITLE |
|------------|----------------------------------|---------------------------|---------------------|----------|--|
| 09/734,847 | December 12, 2000 | Bennett, Crooke, | Tracy Ann | 1635 | Alteration Of Cellular Behavior By Antisense |
| • | ` | Manoharan, Wyatt, | Vivlemore | | Modulation Of mRNA Processing |
| | | Baker, Monia, | | | |
| | | McKay, Karras | | | |
| 10/686,317 | October 15, 2003 | Freier, Matveeva, | Not yet | 1635 | Methods Of Obtaining Active Antisense |
| | | Tsodikov, Giddings, Wyatt | determined | | Compounds |
| 09/938.048 | August 23, 2001 | Bennett, Borchers, | Sean | 1635 | Use of Antisense Oligonucleotide Libraries For |
| | | Karras | McGarry | | Identifying Gene Function |
| 10/673,063 | September 26, 2003 Karras, Dobie | Karras, Dobie | James | 1635 | Antisense Modulation Of MYD88 Expression |
| | 1 | | Schultz | | |
| 10/765,500 | January 26, 2004 | Monia, Cowsert | Not yet | 1635 | Antisense Modulation Of TRADD Expression |
| | | | determined | | |
| 10/467,182 | April 28, 2004 | Ward, Watt | Not yet | 1632 | Antisense Modulation Of WRN Expression |
| | | | determined | | |
| | | | | | |

MAR 2 8 2005 &

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assistant Commissioner for Patents Washington, DC 20231

Sir:

STATEMENT UNDER 37 CFR 3.73(b)

Applicant, ISIS Pharmaceuticals, Inc., a corporation, states that it is:

X the assignee of the entire right, title, and interest of the applications identified in Table A attached hereto.

The extent (by, percentage) of its ownership interest is 100% in the patent applications identified in Table A by virtue of:

a copy of the pertinent assignment from the inventor(s) of the patent applications identified in Table A is enclosed herewith.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Respectfully submitted,

ISIS PHARMACEUTICALS, INC.

Date: 3/16/05

Name: Laura A. Handley

Title: Vice President

PATENT

DOCKET NO.: ISPH-0567

ASSIGNMENT

WHEREAS, We, C. Frank Bennett, of Carlsbad, State of California; Alexander H. Borchers, of Encinitas, State of California and James G. Karras, of San Marcos, State of California, have invented a certain invention entitled Use of Antisense Oligonucleotide Libraries for Identifying Gene Function, for which we have made application for Letters Patent of the United States, said application having been filed August 23, 2001 and assigned Application No. 09/938,048; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions

DOCKET NO.: ISPH-0567

PATENT

of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said nominees, assigns, successors, assignee, representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of. Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is

DOCKET NO : ISPH-0567

PATENT

to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and

seals.

DATED: 11-08, 2001

C. Frank Bennet

State of California

ss.

County of San Diego

On this May of Norman, 2001, before me, the undersigned, a Notary Public for the state, personally appeared C. Frank Bennett, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

PAMELA GROOMS
Commission # 1296342
Notory Public - California
San Diego County
My Comm. Expires Mar 8, 2005

Signature of Notary

DOCKET NO.: ISPH-0567

DATED: 11/15, 2001

Alexander H. Borchers

State of California

ss.

County of San Diego

On this /sh day of November. 2001, before me, the undersigned, a Notary Public for the state, personally appeared Alexander H. Borchers, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

signature of Note

DATED: 11/15 , 2001

James G. Karras

State of California

ss.

County of San Diego

LANE B.D. SCHWARTZ

Commission # 1196197

Notary Public - California

San Diego County

My Comm. Expires Sep 13, 2002

WITNESS my hand and official seal.

Signature of Notary